

## **Methods, Systems, and Devices for Cartographic Alerts**

### **Abstract of the Disclosure**

Systems, devices, and methods are provided for marine navigation and course  
5 calculation for avoiding preselected conditions. An electronic marine navigation device  
with marine course calculation capabilities includes a processor connected to a memory  
that includes cartographic data. A potential waypoint can be identified and a marine  
route calculation algorithm can be preformed to calculate a course between a first  
location and the potential waypoint in view of preselected conditions. Performing the  
10 marine route calculation algorithm includes analyzing the cartographic data for the area  
between the first location and the potential waypoint with a preference for providing a  
course that avoids preselected conditions. A display is connected to the processor and is  
capable of displaying the calculated course and cartographic data. The device is also  
adapted to dynamically analyze an area surrounding the first location for preselected  
15 conditions and display the results of the analysis.